

Case Study

Industry: Education

Global networking services provider

Project: Enterprise data center

Major challenge: Very aggressive timeline



The background.

On March 21, 2007, the Black Box office in Herndon, VA, received an e-mailed RFP from a long-term customer requesting an immediate proposal response (in less than 24 hours) to perform a large deployment, including cable pathways, supportive infrastructure, CAT6 and optical fiber cabling, and complete certification. Responding to this type of request is no problem for the Black Box team, but the complexity of the project coupled with the short deadline required by the client created a challenge.

The project was not simple. It was an all-inclusive project to build out 8000 square feet of space and involved significant up-front planning, staffing, and system testing.

The installation of this data center was a critical initiative for the client. The project included the preparation of a significant amount of space for server cabinets and a complex port distribution system, which was crucial for the continuation of the client's internal networking expansion requirements.

The project was to be completed by April 22. Being industry pros, the Black Box team of technicians was accustomed to working under the tightest of deadlines. The group began aggressively working on the project on March 30—just one week after receiving the RFP.

The details.

- The account manager immediately developed a project plan and milestone tracking chart to ensure technicians met daily and overall objectives.
- Two Black Box project managers created the initial cabling plan and project schedule.
- The site supervisor oversaw the Black Box team of 22 technicians who were working 6 days per week, 10 hours per day on-site.

The project involved a top-to-bottom installation, beginning in the sub-floor, which included a 6" x 12" custom-fabricated cable tray to handle the new switch ports and backbone and management cabling. The floor preparation also included installing under-floor struts,

then marking, drilling, and cutting floor tiles, and installing grommets for the cable entry points.

The customer's 144 server cabinets, which had to be stored in a temporary staging area until the floor was finished, were brought in and bolted into place.

The project required the installation of more than 6000 CAT6 ports, including:

- 2592 ports between the data center server cabinets and the IDF racks, which Black Box linked via under-floor cabling. Much care went into dressing both ends of each run, with Black Box using approximately 30 feet of highly detailed dress to ensure neat and organized connections. Technicians labeled cables for easy identification.
- 2976 switch ports. Black Box separated them into 48-port groupings, 62 in all, then dressed and labeled them. Cables from the switch ports were routed under the floor, dressed and terminated in patch panels at the IDF end.
- 288 management ports, with Black Box installing underfloor cables rack to rack, dressing, terminating, and labeling cables at both ends.
- 240 backbone ports with underfloor cables from the IDF racks to the MDF racks. As with the other port connections, technicians dressed the ends and labeled the cables.

In addition to labeling cables at the ports, Black Box labeled the data center patch panels and cabinets. Technicians also performed detailed testing of all cables to ensure standards-based CAT6 performance. This included spot testing at each step in the termination process, reviewing test data, and providing summary as well as detailed results to the customer.

When the installation was complete, Black Box performed a detailed cleanup of the entire floor and building corridors, removing Masonite® protective flooring and tape residue, and cleaning the floor tiles of the newly deployed space.

Black Box completed the project on time and under budget with exceptional results—exactly what the client was looking for.

Black Box Network Services understands that for a data center implementation to be successful, the project must be carefully managed by a team that not only understands the technology and industry standards, but also fully comprehends the client's business goals, timelines, and objectives for the project.



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